

**REMARKS**

The 20 February 2003 official action addressed claims 1-35. Claims 1-33 and 35 are amended. Claims 1-35 are pending for reconsideration.

**1. Overview of amendments**Specification amendment

The specification is amended to supply the serial numbers of related applications that were not known at the time of filing of the present application. No new matter is added.

Claim amendments

Independent claims 1, 12, 21 and 30 are amended to clarify that the claims relate to a viewer profile that includes user-specified preference scores for respective categories of a category hierarchy, with the preference scores representing an amount of user interest in subject matter of the corresponding category.

Claims 8, 17, 26 and 33 are amended to clarify that a priority contained in a viewer profile indicates the priority of that viewer profile with respect to other viewer profiles when multiple viewer profiles are being used at the same time for identifying programming events of interest.

Claims 10, 19, 28 and 35 are amended to clarify that an amount of time is specified in a viewer profile that tells how far in advance of a program an alert for that program is to be provided (e.g. 1 minute, 5 minutes etc.).

Claims 11, 20, 29 and 32 are amended to clarify that a viewer profile indicates times of day during which the viewer profiled is to be used for identifying programming events of interest.

The claims are further amended to be consistent with the aforementioned amendments and to generally clarify their language and correct editorial errors.

No new matter is added.

## 2. Response to objections and rejections

### Prior art rejections

Claims 1-8, 11-17, 20-26 and 29-33 were rejected under 35 USC §102(e) as being anticipated by Barrett (U.S. 6,005,597). Claims 10, 19, 28 and 34-35 were rejected under 35 USC §103(a) as being obvious over Barrett in view of Lee (U.S. 6,483,428). It is believed that the claims will be seen to be patentably distinct from the cited references in view of the following discussion.

The claimed invention pertains to a viewer profile that is used to identify video programming events that are of interest to a viewer through analysis of metadata describing individual programming events. In accordance with the claimed invention, the viewer ("user") is enabled to set up a viewer profile by entering data that is used as part of the viewer profile. Among the data entered by the viewer are preference scores for various categories within a category hierarchy. Figure 8 shows an example of a category hierarchy that may be used. From Figure 8 it is seen that the claimed classification hierarchy is comprised of branch structures of categories, in which categories are sub-categories of other categories. In accordance with the claimed invention, the viewer is presented with the branches of categories, for which preference scores may be entered to indicate the viewer's degree of interest in programming that is fairly described by each a particular category. Associating preference scores with categories that are related in a hierarchical manner provides a highly detailed description of the type of programming events that are of interest to that viewer. For example, a preference score for a given category (e.g., "Sports") provides some information about the programming event, but by also providing preference scores for subcategories of Sports (e.g. NFL) and providing scores for sub-categories of those sub-categories (e.g. individual team names), the subject matter that interests the viewer is more precisely specified.

Figure 13 shows an example of a viewer profile including viewer preference scores (Category\_scores) for categories of a category hierarchy. The preference scores of the viewer profile are processed along with "goodness of fit" scores assigned to the same hierarchy of categories in metadata for various

programming events, an example of which is shown in Figure 7. This enables highly refined viewer profiles to be compared with highly refined programming event descriptions to generate highly intelligent programming selections in an automated fashion.

Additional features of the claimed invention include enabling the viewer to link keywords with particular categories of the category hierarchy, enabling the viewer to assign preference scores to keywords, enabling the viewer to specify a priority of the viewer profile relative to other viewer profiles resident on the same device, and enabling the viewer to specify a maximum number of alerts to be generated using the viewer profile in a given time period, an amount of time prior to a program to provide an alert, and times of day when the viewer profile is to be active.

The features of the claimed invention are not taught by the cited references. Barrett teaches a device that provides automated selection of programs based on viewer profiles. However Barrett's viewer profile does not \* utilize a hierarchy of categories, and Barrett does not provide the viewer with the ability to input preference scores for categories of such a hierarchy.

Barrett describes the contents of his viewer profile data at col. 4, line 27 - col. 5, line 39, and describes the manner in which viewer profiles are created by the viewer at col. 5, line 40 - col. 7, line 48. Barrett provides three examples of viewer profile data. In the example of Figure 3, an "interest" score and a "confidence" score are associated with an alphabetized list of keywords. The keywords are either program topics (e.g. "Satire") or program titles labeled with the corresponding topic (e.g. "Seinfeld (Comedy/Satire)"). In the example of Figure 4, alphabetized program names and alphabetized topics are associated with counts of "yes" and "no" votes that are received during a voting process. In the example of Figure 5, the names and topics of Figure 4 are replaced with numerical codes.

Barrett creates the viewer profiles of Figures 3-5 through a voting process, in which a list of sample programs is provided to the viewer, and the viewer indicates interest in each program by a yes or no vote (col. 5, line 51 - col. 6, line 47). The viewer profile may be updated by enabling the viewer to

provide a yes or no vote for programs currently being viewed (col. 6, line 48 - col. 7, line 48). The viewer profile may also be augmented using data from other viewer profiles that have similar viewing habits (col. 8, line 46 - col. 10, line 21).

\* Barrett's viewer profile does not utilize a hierarchy of categories. Rather, as seen in Figures 3 and 4, Barrett's viewer profile uses a simple list of program names and a simple list of program topics. There is no hierarchical arrangement to the list of program names or to the list of topics, and there is no suggestion of the use or advantages of a category hierarchy with associated viewer-specified preference scores for describing viewer preferences.

\* Further, Barrett does not provide the viewer with the ability to input preference scores for categories of a hierarchy. Rather, Barrett merely enables the user to provide yes and no votes to a list of program titles, and suggests no alternative manner for creating a viewer profile. The program names and topics in the viewer profile of Figure 3 are not a hierarchy of categories and the interest and confidence scores associated with the program names and topics are not received as input from a viewer.

The aforementioned features are recited in independent claims 1, 12 and 21, and distinguish those claims and their dependent claims from Barrett. Independent claim 30 recites a viewer profile including preference scores associated with categories of a category hierarchy. As Barrett does not teach a category hierarchy, claim 30 and its dependent claims are also distinguished from Barrett.

\* Independent claim 1 also recites that a user interface includes a keyword tool for receiving keywords. In regard to this point the official action noted col. 5, lines 52-57, however this passage states that a template for a viewer profile already includes keywords, thus indicating that there is no tool for receiving keywords from the viewer. Accordingly claim 1 is distinguished on this basis. Dependent claim 13 and 22 contain analogous features and are therefore distinguished on the same basis.

Dependent claims 3, 14 and 23 also recite that a user provides input comprising a preference score for a keyword. In regard to this point the official

action noted col. 7, lines 52-58, however this passage states that a score indicating a viewer's interested in a particular program is calculated based on data in the viewer profile and data for the program. There is no mention of viewer entry of keyword preference scores, and so these claims are also distinguished on this basis.

Dependent claims 5, 15 and 24 also recite that a viewer may supply both a keyword and a category with which the keyword is associated, while claim 31 states that a keyword is associated with a category of a category hierarchy. In regard to this point the official action cited col. 5, lines 52-57 and Figure 6, however these parts of Barrett simply state that a score indicating a viewer's interested in a particular program is calculated based on data in the viewer profile and data for the program. There is no mention of viewer entry of both a keyword and a category with which it is associated, and so these claims are also distinguished on this basis.

Dependent claims 6, 16 and 25 also recite that a viewer may supply a preference score for a keyword that is associated with a category. In regard to this point the official action cited col. 13, lines 7-15, however this passage states that the degree of viewer interest in a program may be represented by a sliding bar. There is no mention of viewer entry of a preference score for a keyword that is associated with a category, and so these claims are also distinguished on this basis.

Dependent claims 8, 17 and 26 also recite that a viewer is enabled to enter a priority for the viewer profile that indicates its priority with respect to other viewer profiles when multiple viewer profiles are being used to select programs, while claim 33 states that a viewer profile includes a priority. In regard to this point the official action cited col. 9, lines 1-26, however this passage describes augmenting a viewer profile using data from other similar viewer profiles. There is no mention of a viewer specifying the priority of his profile relative to other profiles, and so these claims are also distinguished on this basis.

Dependent claims 10, 19 and 28 also recite that a viewer is enabled to specify an amount of time prior to an identified program that an alert is to be

given for the program, while claim 35 states that a viewer profile includes a specification of how much time in advance an alert should be provided. In regard to this point the official action cited col. 3, lines 23-35 and lines 54-59 of the Lee reference. This portion of the Lee reference describes a device that identifies programming of interest based on viewer profiles and can provide an alert regarding a program of interest. However, there is no mention of the timing of the alert being specified by the viewer, and so these claims are also distinguished on this basis.

Dependent claims 11, 20 and 29 also recite that a viewer is enabled to specify times of day during which the viewer profile is to be used, while claim 32 states that a viewer profile includes an indication of the times of day during which it is to be used. In regard to this point the official action cited col. 6, lines 62-65 of Barrett, however this portion of Barrett describes that the device allows a predetermined period of time to receive a yes or no vote from the viewer in regard to a program being viewed. Times of day to be active are not taught by Barrett, and so these claims are also distinguished on this basis.

Dependent claim 34 also recites that a viewer profile includes contact information indicating where a programming event alert should be sent. Examples of contact information provided in the application include an email address or pager address. In regard to this point the official action cited col. 3, lines 23-35 and 54-59 of the Lee reference, however these portions of Lee do not discuss or suggest anything concerning a viewer profile that includes contact information. Therefore claim 34 is also distinguished on this basis.

The foregoing amendments and remarks address all bases for objection and rejection and are believed to place the case in condition for allowance. The examiner is invited to contact the undersigned to resolve any remaining issues.

Respectfully submitted,

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